REMARKS

Claims 1-23 are pending, claims 1-4 are examined and rejected, and the remaining claims 5-23 are withdrawn from consideration. Applicants herein cancel claims 2 and 4 without prejudice purely in the interest of advancing prosecution so that upon entry of the instant Amendment, claims 1, 3 and 5-23 will be pending.

Regarding Restriction Requirement

The Examiner makes the Restriction Requirement and Election of Species Requirement final.

Rejection under 35 U.S.C. §112, second paragraph

Claims 2 and 4 are rejected as allegedly unclear because of the phrase "heterologous nucleotide sequence." Because the term "heterologous" is not expressly defined in the specification, Applicants herein delete these claims purely in the interest of advancing prosecution.

Rejection under 35 U.S.C. §102

Claims 1-4 are allegedly anticipated by Nakatani *et al.*, WO 98/03652. In the interest of advancing prosecution and securing rapid allowance of the claims, Applicants herein change "comprising" to "consisting essentially of" in claims 1 and 3. Nakatani *et al,* WO 98/03652. do not teach or suggest the acetyl-lysine binding function of the bromodomains, nor do they teach or suggest the function or the location of the ZA loop that constitutes the acetyl-lysine binding site within a given bromodomain. The latter is an aspect of the instant invention as presently claimed. As such, Nakatani *et al,* WO 98/03652 do not teach or suggest the presently claimed invention.

Claims 1-2 are allegedly anticipated by Dhalluin *et al., Nature* 1999; 399:491-496. As noted above, in the interest of advancing prosecution and securing rapid allowance of the claims, Applicants herein change "comprising" to "consisting essentially of" in claim 1. Further, Applicants submit that Dhalluin *et al., Nature* 1999; 399:491-496 is Applicants' own publication describing the discovery of the acetyl-lysine binding function of bromodomains.

Applicants submit herewith the Declaration under 37 C.F.R. 1.131 of Ming-Ming Zhou, Ph.D. , a co-inventor along with Aneel Aggarwal, Ph.D. of the above- referenced application.

The application was filed in the United States Patent and Trademark Office on February 22, 2000. Dhalluin *et al., Nature* 1999; 399:491-496 published on June 3, 1999.

The Declarant swears under oath that he is familiar with the scientific publication Dhalluin *et al., Nature* 1999; 399:491-496, which describes a research study that he directed in his research laboratory at Mount Sinai School of Medicine, and for which he served as a corresponding author and communicated with the editors of *Nature* for its publication. (*See*, Zhou Declaration, paragraph 6).

The Declarant also swears under oath that the invention described and claimed in the above-referenced application was conceived in the United States prior to the effective date of Dhalluin *et al., Nature* 1999; 399:491-496. (June 3, 1999), particularly prior to March 29, 1999, the date that he submitted a revised manuscript to *Nature* for review. (*See*, attached copy of the revised manuscript, submitted herewith as Exhibit B; Zhou Declaration, paragraph 7)

The Declarant also swears under oath that he and co-inventor Aneel Aggarwal, Ph.D. were diligent in reducing the invention to practice at a minimum by filing United States Patent Application Serial No. 09/510,314, on February 22, 2000, from a date at least as early as December 7, 1998 when he completed the determination of the human PCAF bromodomain structure and identified its biochemical function as an acetyl-lysine binding domain. (*See*, attached copy of the Statistics Tables of the final family of the NMR solution structures of the PCAF bromodomain, submitted herewith as Exhibit C; Zhou Declaration paragraph 8).

The Declarant provides herewith as Exhibit B a copy of the revised manuscript submitted to the journal of *Nature* dated March 29, 1999, and copies of computer print-outs of the Statistics Tables of the NMR solution structures of the PCAF bromodomain dated December 8, 1998. The subject matter of the revised manuscript is identical to the reference Dhalluin *et al., Nature* 1999; 399:491-496. (June 3, 1999). (*See*, Zhou Declaration, paragraph 9).

In view of the foregoing, Dhalluin *et al., Nature* 1999; 399:491-496 (June 3, 1999) is not prior art to the present application. As such, any rejection based upon Dhalluin *et al.* is improper.

Rejection under 35 U.S.C. §103

Claims 3-4 are allegedly unpatentable over Nakatani *et al.*, WO 98/03652 in view of Malcolm *et al.*, EP 0124221. The Examiner admits that Nakatani *et al.* do not teach including a non-P/CAF nucleic acid sequence. However, the Examiner says that Malcolm *et al.* teach

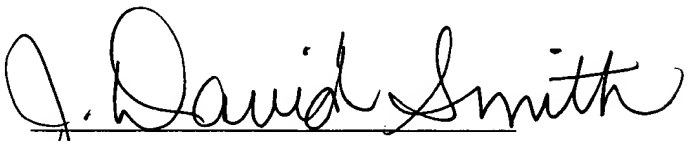
detecting nucleic acid probes bound to target sequences including, e.g. using a probe having a poly (dA) or poly (dT) tail that binds to a marker attached to the polynucleotide. Therefore, it would have allegedly been obvious to include such tails in the probes of Nakatani *et al.*

Applicants reiterate the deficiencies of Nakatani *et al.* as set forth above. Malcolm *et al.* do not cure these deficiencies. As explained above, in the interest of advancing prosecution and securing rapid allowance of the claims, Applicants herein change "comprising" to "consisting essentially of" in claim 3.

CONCLUSION

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is believed that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,



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